SECTION V-B – FM BROADCAST ENGINEERING DATA (Page 3)

10. Is a directional antenna proposed? ☐ Yes ☒ No

If Yes, attach as an Exhibit a statement with all data specified in 47 C.F.R. Section 73.316, including plot(s) and tabulations of the relative field. Exhibit No. N/A

11. Will the proposed facility satisfy the requirements of 47 C.F.R. Sections 73.315(a) and (b)? ☒ Yes ☐ No

If No, attach as an Exhibit a request for waiver and justification therefor, including amounts and percentages of population and area that will not receive 3.16 mV/m service. Exhibit No. N/A

12. Will the main studio be within the protected 3.16 mV/m field strength contour of this proposal? ☒ Yes ☐ No

If No, attach as an Exhibit justification pursuant to 47 C.F.R. Section 73.1125. Exhibit No. N/A

13. (a) Does the proposed facility satisfy the requirements of 47 C.F.R. Section 73.207? ☐ Yes ☒ No

(b) If the answer to (a) is No, does 47 C.F.R. Section 73.213 apply? ☒ Yes ☐ No

Proposal meets spacing requirements of Section 73.213 (c) (1)

(c) If the answer to (b) is Yes, attach as an Exhibit a justification, including a summary of previous waivers. Exhibit No. Stmt. A

(d) If the answer to (a) is No and the answer to (b) is No, attach as an Exhibit a statement describing the short spacing(s) and how it or they arose. Exhibit No. N/A

(e) If authorization pursuant to 47 C.F.R. Section 73.215 is requested, attach as an Exhibit a complete engineering study to establish the lack of prohibited overlap of contours involving affected stations. The engineering study must include the following: Exhibit No. N/A

(1) Protected and interfering contours, in all directions (360°), for the proposed operation.
(2) Protected and interfering contours, over pertinent arcs, of all short-spaced assignments, applications and allotments, including a plot showing each transmitter location, with identifying call letters or file numbers, and indication of whether facility is operating or proposed. For vacant allotments, use the reference coordinates as the transmitter location.
(3) When necessary to show more detail, an additional allocation study utilizing a map with a larger scale to clearly show prohibited overlap will not occur.
(4) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
(5) The official title(s) of the map(s) used in the exhibits(s).

14. Are there: (a) within 60 meters of the proposed antenna, any proposed or authorized FM or TV transmitters, or any nonbroadcast *(except citizens band or amateur)* radio stations; or (b) within the blanketing contour, any established commercial or government receiving stations, cable head-end facilities, or populated areas; or (c) within ten (10) kilometers of the proposed antenna, any proposed or authorized FM or TV transmitters which may produce receiver-induced intermodulation interference? ☐ Yes ☒ No

If Yes, attach as an Exhibit a description of any expected, undesired effects of operations and remedial steps to be pursued if necessary, and a statement accepting full responsibility for the elimination of any objectionable interference (including that caused by receiver-induced or other types of modulation) to facilities in existence or authorized or to radio receivers in use prior to grant of this application. *(See 47 C.F.R. Sections 73.315(b), 73.316(e) and 73.318.)* Exhibit No. N/A

15. Attach as an Exhibit a 7.5 minute series U.S. Geological Survey topographic quadrangle map that shows clearly, legibly, and accurately, the location of the proposed transmitting antenna. This map must comply with the requirements set forth in Instruction V. The map must further clearly and legibly display the original printed contour lines and data as well as latitude and longitude markings, and must bear a scale of distance in kilometers.

Exhibit No. Fig. 2

16. Attach as an Exhibit *(name the source)* a map which shows clearly, legibly, and accurately, and with the original printed latitude and longitude markings and a scale of distance in kilometers: U.S.G.S. 1:250,000 Greenville S.C., GA., N.C.

Exhibit No. Fig. 3

(a) the proposed transmitter location, and the radials along which profile graphs have been prepared;

(b) the 8.16 mV/m and 1 mV/m predicted contours; and

(c) the legal boundaries of the principal community to be served.

17. Specify area in square kilometers (1 sq. mi. = 2.59 sq. km.) and population (latest census) within the predicted 1 mV/m contour.

Area 1840 sq. km. Population 149,200

18. For an application involving an auxiliary facility only, attach as an Exhibit a map *(Sectional Aeronautical Chart or equivalent)* that shows clearly, legibly, and accurately, and with latitude and longitude markings and a scale of distance in kilometers:

Exhibit No. N/A

(a) the proposed auxiliary 1 mV/m contour; and

(b) the 1 mV/m contour of the licensed main facility for which the applied-for facility will be auxiliary. Also specify the file number of the license.

19. Terrain and coverage data *(to be calculated in accordance with 47 C.F.R. Section 73.313)*

Source of terrain data: *(check only one box below)*

☒ Linearly interpolated 30-second database ☐ 7.5 minute topographic map

(Source: N.G.D.C. TPG-0050)

☐ Other *(briefly summarize)*

SECTION V-B – FM BROADCAST ENGINEERING DATA (Page 5)

Radial bearing (degrees True)	Height of radiation center above average elevation of radial from 3 to 16 km (meters)	Predicted Distances	
		To the 3.16 mV/m contour (kilometers)	To the 1 mV/m contour (kilometers)
*			
0	72	11½	20½
45	90	13	23
90	99	13½	24
135	112	14	25½
180	106	14	25
225	115	14½	26
270	107	14	25
315	98	13½	24

*Radial through principal community, if not one of the major radials. This radial should NOT be included in the calculati of HAAT.

20. Environmental Statement *(See 47 C.F.R. Section 1.1301 et seq.)*

Would a Commission grant of this application come within Section 1.1307 of the FCC Rules, such that it may have a significant environmental impact? ☐ Yes ☒ No

If you answer Yes, submit as an Exhibit an Environmental Assessment required by Section 1.1311. Exhibit No. N/A

If No, explain briefly why not. Proposal categorically excluded under Section 1.1306; human exposure to excessive electromagnetic energy will not occur; See Statement B.

CERTIFICATION

I certify that I have prepared this Section of this application on behalf of the applicant, and that after such preparatio I have examined the foregoing and found it to be accurate and true to the best of my knowledge and belief.

Name *(Typed or Printed)*	Relationship to Applicant *(e.g., Consulting Engineer)*
Karl D. Lahm, P.E.	Consulting Engineer
Signature 	Address *(Include ZIP Code)* Lahm, Suffa & Cavell, Inc. 3975 University Drive, Suite 450 Fairfax, VA 22030
Date 17 December 1990	Telephone No. *(Include Area Code)* (202) 332-0110

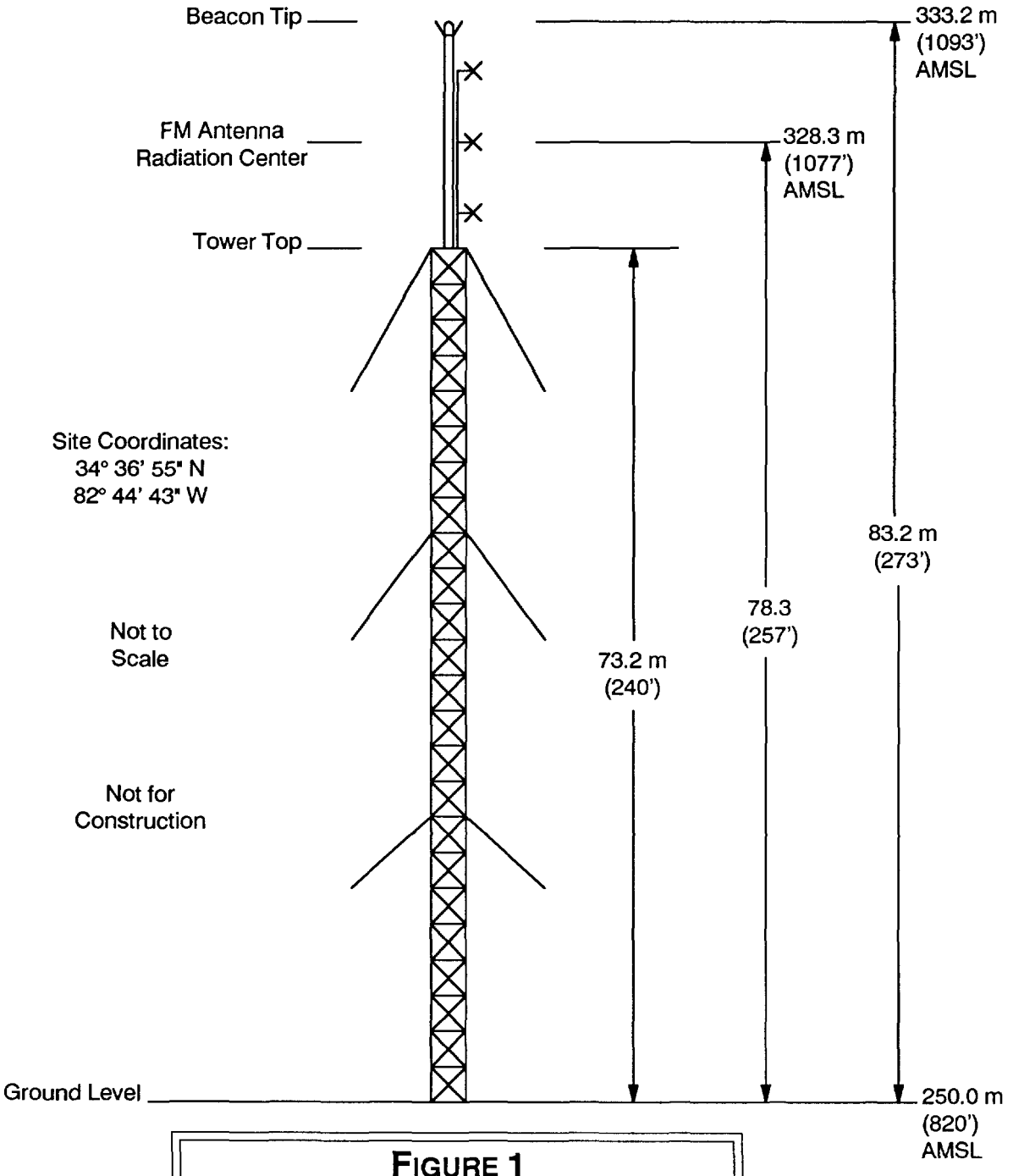


FIGURE 1
ANTENNA SYSTEM ELEVATION PLAN

prepared December 1990 for
Clemson Broadcasting, Inc.
Clemson, South Carolina

Ch 285A (104.9 MHz) 3 kW 100 m

Lahm, Suffa & Cavell, Inc.
Consulting Engineers - Fairfax, VA

Statement A

ALLOCATION CONSIDERATIONS

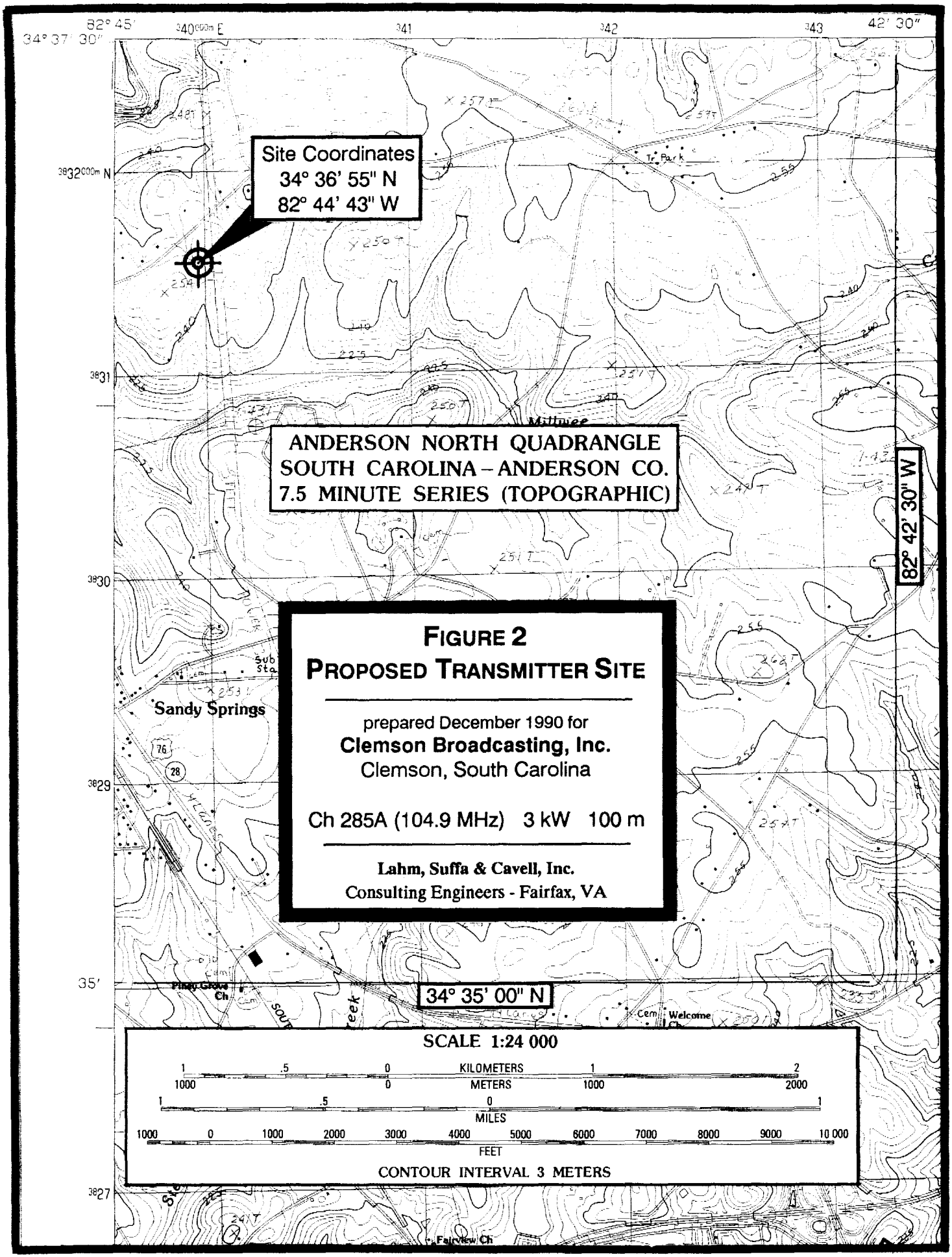
prepared for
Clemson Broadcasting, Inc.
Clemson, South Carolina

The proposed facility does not comply with the interstation distance separation requirements set forth in §73.207 of the Commission's Rules, as effective on 2 October 1989. However, this is a new station proposal on a channel allotment made by order granting a Petition for Rule Making (MM Docket No. 86-32) which was filed prior to October 2, 1989. Accordingly, this proposal may be accepted under the provisions of §73.213(c)(1) of the Commission's Rules.

Section 73.213(c)(1) specifies a less restrictive table of minimum distance separations applicable to Class A applications which meet the threshold criteria set forth above and propose operation equivalent to an effective radiated power (ERP) of 3 kW at a antenna height above average terrain (HAAT) of 100 meters. The instant proposal involves exactly such operation.

The spacing between this proposed site and that of first lower adjacent channel Class C1 station WALR, Athens, GA, is 129.7 kilometers. Section 73.207 requires a separation of 133 kilometers for this relationship, but §73.213(c)(1) permits a separation of 129 kilometers, which this proposal meets. The separation with respect to co-channel Class C station WQNS, Waynesville, NC, is 106.8 km. Section 73.207 requires a separation of 115 kilometers, but §73.213(c)(1) allows a spacing of 105 kilometers, which this proposal meets. There are no other possible short spacings under either set of distance separation standards.

It is notable that the allocation reference point adopted by the Commission for this allotment is itself short-spaced to both WALR and WQNS under the separation distances specified by §73.207, as amended effective 2 October 1989.


82° 45'
34° 37' 30"
340000m E
341
342
343
42' 30"
Site Coordinates
34° 36' 55" N
82° 44' 43" W
3832000m N
3831
3830
3829
35'
3827
ANDERSON NORTH QUADRANGLE
SOUTH CAROLINA – ANDERSON CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
82° 42' 30" W
34° 35' 00" N
Sandy Springs
Piney Grove Ch
Welcome Ch
Fairview Ch
Tr. Park
Mittwee
FIGURE 2
PROPOSED TRANSMITTER SITE
prepared December 1990 for
Clemson Broadcasting, Inc.
Clemson, South Carolina
Ch 285A (104.9 MHz) 3 kW 100 m
Lahm, Suffa & Cavell, Inc.
Consulting Engineers - Fairfax, VA
SCALE 1:24 000
1 .5 0 KILOMETERS 1 2
1000 0 METERS 1000 2000
1 .5 0 1
MILES
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10 000
FEET
CONTOUR INTERVAL 3 METERS

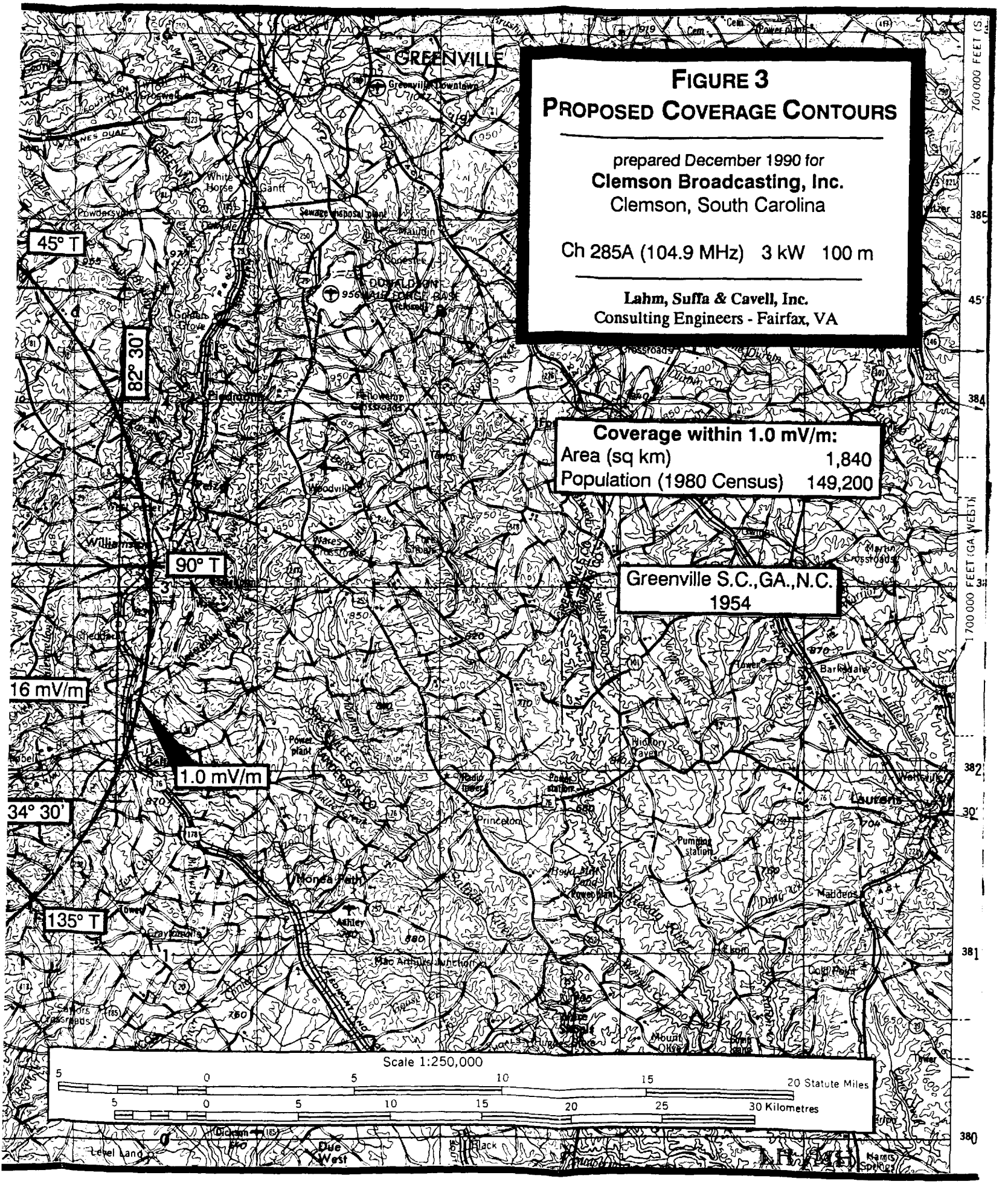
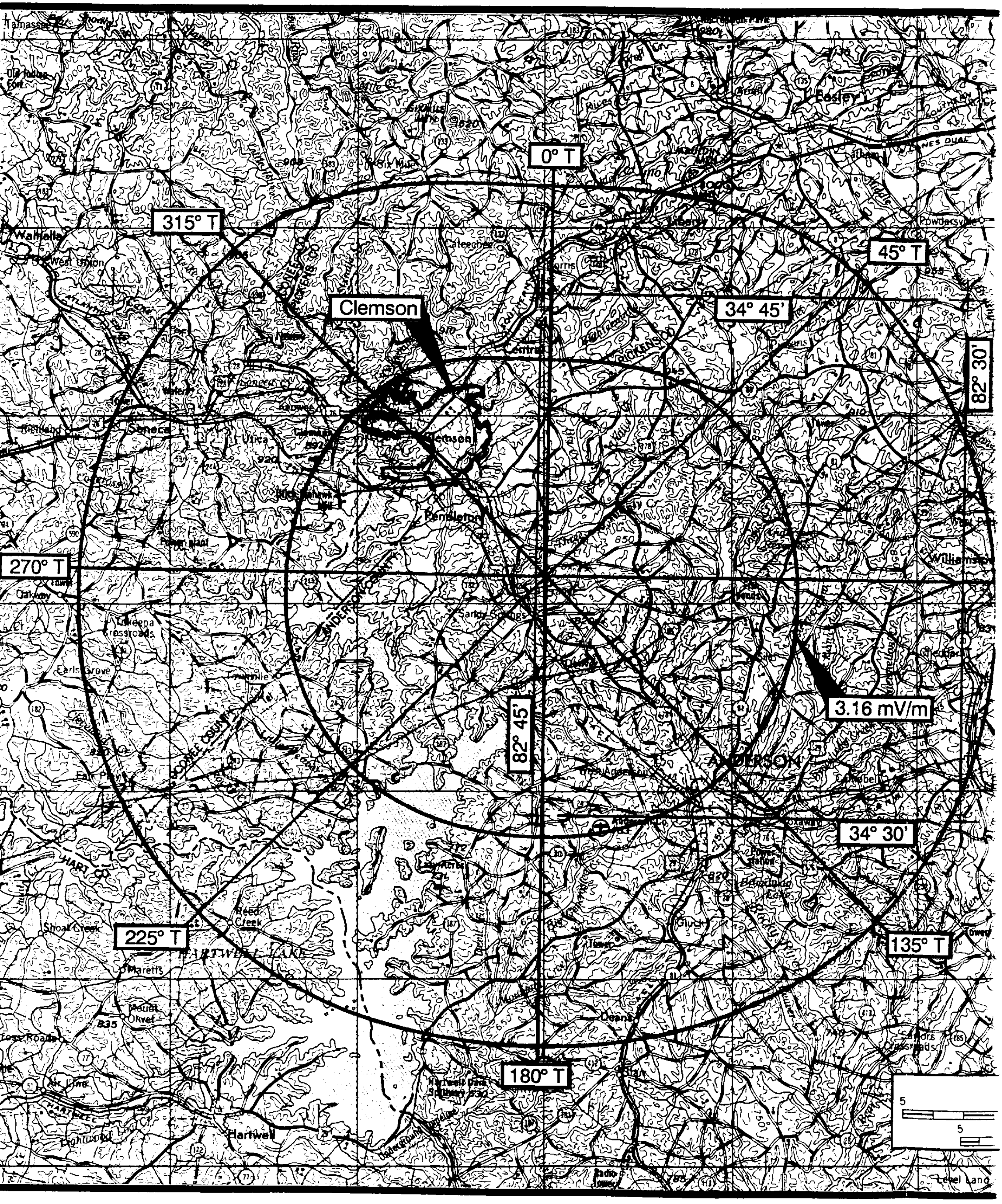


FIGURE 3
PROPOSED COVERAGE CONTOURS
prepared December 1990 for
Clemson Broadcasting, Inc.
Clemson, South Carolina
Ch 285A (104.9 MHz) 3 kW 100 m
Lahm, Suffa & Cavell, Inc.
Consulting Engineers - Fairfax, VA
Coverage within 1.0 mV/m:
Area (sq km) 1,840
Population (1980 Census) 149,200
Greenville S.C.,GA.,N.C.
1954
45° T
82° 30'
90° T
16 mV/m
1.0 mV/m
34° 30'
135° T
GREENVILLE
Scale 1:250,000
20 Statute Miles
30 Kilometres


0° T
315° T
45° T
Clemson
34° 45'
82° 30'
270° T
3.16 mV/m
82° 45'
34° 30'
225° T
135° T
180° T